REMARKS

Claims 1-3, 5, 8, and 10-13 are pending in this application. By this Amendment, claim 13 is added. Support for the amendment may be found, for example, in the specification at paragraph [0023] and in the Gas Chromatography Charts submitted with the February 15, 2011 Request for Reconsideration. No new matter is added.

In view of the foregoing amendments and following remarks, reconsideration and allowance are respectfully requested.

I. Telephone Interviews

The courtesies extended to Applicants' representative by Examiners Love and Blanchard during the interview held March 5, 2011, and by Examiner Landau during the interview held March 22, 2011 are appreciated. The reasons presented during the interviews as warranting favorable action are incorporated into the remarks below, which constitute Applicants' record of the interview.

II. Rejection Under 35 U.S.C. §112

The Office Action rejects claim 12 under the written description requirement of 35 U.S.C. §112, first paragraph. As agreed to during the telephone interview held March 22 with Examiner Landau, the rejection has been withdrawn.

III. Rejection Under 35 U.S.C. §103

The Office action again rejects claims 1-3, 5, 8, and 10-12 under 35 U.S.C. §103(a) as having been obvious over U.S. Patent No. 6,242,499 to Gruning et al. ("Gruning"). Applicants respectfully traverse the rejection.

Claim 1 recites:

> A cosmetic comprising a hydroxyl compound obtained by reacting diglycerin with isostearic acid, and then reacting the obtained ester compound with dimer acid, wherein
> a molar ratio among diglycerin, isostearic acid, and dimer acid is 1.0 : 1.4 to 1.6 : 0.5 to 0.8;

a hydroxyl value of the hydroxyl compound is in a range of from 30 to 80;

a viscosity at 60 degrees C of the hydroxyl compound is in a range of from 2,500 to 10,000 mPa.s; and

a number average molecular weight of the hydroxyl compound is in a range of from 2,000 to 7,000.

(Emphasis added). Claim 11 recites similar features. Gruning would not have rendered obvious each and every feature of claims 1 and 11.

As acknowledged by the Office Action, the molecular weight and the molar ratios as recited in claim 1 are not taught by Gruning. *See* Office Action, page 6. However, the Office Action asserts that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to vary the molecular weight of the composition, and the molar ratio of the components." *Id.* This reasoning is flawed.

Gruning discloses polyglycerols obtained "from epichlorohydrin or glycidol." *See* Gruning, col. 3, lines 23-24. The polyglycerols of Gruning have the following oligomer distribution:

Glycerol	0 to 30% by weight
Diglycerol	15 to 40% by weight
Triglycerol	10 to 55% by weight
Tetraglycerol	2 to 25% by weight
Pentaglycerol and higher components	0 to 15% by weight

See Gruning, col. 3, lines 25-32. Accordingly, the polyglycerol compositions disclosed by Gruning have a significant oligomer distribution and, at best, are a mixture of various glycerol compounds and would be recognized as such by one of ordinary skill in the art. More specifically, Gruning discloses polyglycerols having the oligomer distribution as listed above, where triglycerol and tetraglycerol are two necessary components in the polyglycerol of Gruning. *See* Gruning, col. 3, lines 25-32.

As acknowledged by the Office Action, the recited molar ratios are not taught by Gruning; however, they can be surmised. Specifically, column 4, lines 46-62 of Grunig explains the following:

First, 100 g of technical-grade polyglycerol, distinguished by a hydroxyl number 1180, was used to prepare the polyglycerol ester of Gruning. The hydroxyl number 1180 corresponds almost to that of triglycerin (1170), which has a molecular weight of 240. Therefore, the molecular weight of the technical-grade polyglycerol used can be surmised to be about 240. Thus, 100 g of the technical-grade polyglycerol is **0.417 mole** (i.e., 100/240).

Second, 121 g of dimmer acid (Pripol 1025 from Unichema, comprising approximately 5% of monocarboxylic acid, approximately 75% of difunctional and approximately 20% of trifunctional carboxylic acid) was added to the technical-grade polyglycerol. While the exact molecular weight of the Pripol 1025 is not known, it can be surmised to be close to that of Pripol 1009, which was used in the Examples of the instant specification. Specifically, Pripol 1009 has a molecular weight of 561. *See* specification, page 11, line 4. Thus, 121 g of Pripol 1025 would correspond to about **0.216 mole** (i.e., 121/561).

Lastly, because 264 g or **0.93 mole** of isostearic acid was used, the final molar ratio of polyglycerol : isostearic acid : dimmer acid in Gruning comes out to 0.417 : 0.93 : 0.216 = **1.0 : 2.2 : 0.52**. As is evident, the molar ratio of Grunig is outside the range of **1.0 : 1.4 - 1.6 : 0.5 - 0.8**, as recited in claims 1 and 11.

Thus, Gruning does not disclose a cosmetic comprising a hydroxyl compound obtained by reacting diglycerin with isostearic acid, wherein a molar ratio among diglycerin, isostearic acid, and dimer acid is 1.0 : 1.4 to 1.6 : 0.5 to 0.8, as recited in claims 1 and 11.

Gruning further fails to provide any reason or rationale for one of ordinary skill in the art to have removed triglycerol, tetraglycerol, glycerol and any pentaglycerols and higher from

Gruning's polyglycerol and, in effect, to have replaced the oligomer distribution of Gruning with diglycerol, to have obtained the claimed molar ratio among diglycerin, isostearic acid, and dimer acid.

In support that the composition of claims 1 and 11 would not have been rendered obvious by Gruning, a Declaration Under 37 C.F.R. §1.132 of Naoki Sasaki and Mari Yoshida ("Declaration") showing the advantageous and unexpected results of the composition of claims 1 and 11 was submitted with the Amendment filed on August 9, 2010.

As described in the Declaration, experimental tests were conducted on three compositions: (1) HAILUCENT, an Example according to Preparation Example 3 of the specification; (2) Lot 100407, a Comparative Example that is representative of Gruning; and (3) ISOLAN® PDI, a Comparative Commercial Example of Gruning. The compositions are summarized in Table 1 on the following page.

Table 1
Experimental Compositions

COMPOSITION		DESCRIPTION
1	**HAILUCENT** **Example according to Preparation Example 3 of the Specification**	HAILUCENT is a product of Kokyu Alcohol Kogyo Co., Ltd HAILUCENT was prepared in a manner identical to Preparation Example 3 of the present specification, except that the diglycerol used was "Diglycerin 801" ex. Sakamoto Yakuhin Kogyo Co., Ltd., instead of K COL II (see specification, paragraphs [0035] and [0036]). Diglycerin 801 is equivalent to K COL II and was used because K COL II is no longer being produced (see specification, paragraph [0023]). The isostearic acid, "isostearic acid EX", used in "HAILUCENT" is a purified one from Prisoline 3507, ex. Unichema; and the dimer acid, "PRIPOL1009", used in "HAILUCENT, has an average degree of polymerization of 2.0 (almost pure). The mole ratio of diglycerin : isostearic acid : dimer acid in "HAILUCENT" is 1: 1.5: 0.65.
2	**Lot 100407** **Comparative Example of Gruning**	*Please see Declaration for synthesis of Lot 100407*
3	**ISOLAN® PDI** **Comparative Commercial Example of Gruning**	ISOLAN® PDI is a product of Goldschmidt AG, the assignee of Gruning (U.S. Patent No. 6,242,499). The term "ISOLAN® PD1" is the trade name for the INCI/CTFA name: **diisostearoyl polyglyceryl-3 dimer dilinoleate**.[1]

[1] *see, e.g.* http://www.manufacturingchemist.com/company/single_company/Evonik_Goldschmidt_GmbH/46023 (last visited: 15 May 2010).

The number average molecular weight and viscosity at 60°C were measured for each composition. Additionally, five panelists evaluated the compositions' removal with water. Gloss properties were also measured for each of the three compositions.

The results are summarized in Table 2 as show below.

Table 2

Number Average Molecular Weight, Viscosity, Removal with Water and Gloss

Experimental Composition	Number average molecular weight	Viscosity at 60°C; [mPa.s]	Removal with Water	Gloss
HAILUCENT **Example According Preparation Example 3 of the Specification**	4936	2940	"**strong remain**" by all of the five panelists	79
Lot 100407 **Comparative Example of Gruning**	2927	909	"**no remain**" by all of the five panelists	70
ISOLAN® PDI **Comparative Commercial Example of Gruning**	2856	900	"**no remain**" by all of the five panelists	68

As shown above in Table 2, the viscosity of HAILUCENT is **223.4% greater** than the viscosity of Lot 100407, the Comparative Example of Gruning, and **226.7% greater** than ISOLAN® PDI, the commercial embodiment of Gruning. The gloss of HAILUCENT is also **12.8% greater** than the gloss of Lot 100407, and **16.1% greater** than ISOLAN® PDI. In addition, HAILUCENT also performed superior with respect to the removal with water test conducted by five panelists, yielding a "strong remain" of the composition from all five panelists, as shown above. The sizeable difference with respect to viscosity, gloss and

improvement in removal with water that was achieved as a result of selecting diglycerin, as recited in claims 1 and 11, over other higher and lower order glycerol components was unexpected from similar compositions that were prepared with a polyglycerol comprised of triglycerol and tetraglycerol, glycerol pentaglycerols and higher.

Gruning provides no reason or rationale for one of ordinary skill in the art to have modified the reference in the manner necessary in order to have obtained the composition recited in claims 1 and 11 with any reasonable expectation of success.

Based on the above, Gruning would not have rendered claims 1 and 11 obvious. The remaining claims variously depend from claim 1 and are patentable for at least the reasons that claim 1 is patentable, as well as for the additional features they recite.

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

IV. New Claim

By this Amendment, new claim 13 is presented. New claim 13 depends from claim 1 and, thus, patentably distinguishes over the applied reference for at least the reasons discussed above. Prompt examination and allowance of claim 13 are respectfully requested.

V. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

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WPB:JZM

Attachments (2):
Petition for Extension of Time
Request for Continued Examination

Date: April 15, 2011

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